


Myeloma cell lines and primary myeloma cells

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 An abbreviated version of this protocol was published in Science Signaling in May 2020

Myeloma cells shift osteoblastogenesis to adipogenesis by inhibiting the ubiquitin ligase MURF1 in mesenchymal stem cells

DOI: 10.1126/scisignal.aay8203

Detailed protocol

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7884723/>

<https://pubmed.ncbi.nlm.nih.gov/33589584/>

please refer to these articles.

How to cite: (Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Liu, Z. and Yang, J. (2021). Myeloma cell lines and primary myeloma cells. Bio-protocol Preprint. bio-protocol.org/prep1319.
2. Liu, Z., Liu, H., He, J., Lin, P., Tong, Q. and Yang, J.(2020). Myeloma cells shift osteoblastogenesis to adipogenesis by inhibiting the ubiquitin ligase MURF1 in mesenchymal stem cells . Science Signaling 13(633). DOI: [10.1126/scisignal.aay8203](https://doi.org/10.1126/scisignal.aay8203)

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